

as its daily average. It was greater in the morning (2165 c.c.) than during the day (1737 c.c.) or at night (1701).

(c). *The percentage of sugar.*—This continued nearly unchanged, being on an average 9.39 in 100 grammes.

(d). *The total amount of sugar.*—In this a considerable increase was visible, while the farinaceous diet was continued. The average quantity of sugar daily excreted amounted to 526.4 grammes; and the urine in the morning contained more (201 gr.) than at noon (159g.), or at night (165 gr.).

3. *The effect of animal diet on*

(a). *The specific gravity.*—It remained nearly unaltered by this regimen, as happened with both the other diets. Its average was 1037.2; and it was lower in the morning (1036) than at other times (1037).

(b). *The amount of the urine.*—This was considerably diminished, the average quantity *per diem* being 4588 cubic centimetres. The average amount was much greater in the morning (1816 c.c.) than during the day (1324 c.c.) or at night (1448 c.c.).

(c). *The percentage of sugar.*—This was also lessened, being on an average 8.232 in 100 grammes.

(d). *The total amount of sugar.*—Here, likewise, a striking diminution was manifest. The average quantity daily excreted was 379.8 grammes; this was greatest in the morning (139 grs.), and less during the day (114 grs.) than at night (126 grs.).

Dr. Von Dursch discusses several of the questions relative to diabetes, and brings to bear upon them the weight of his experience and careful observations. As regards the disputed point, whether the quantity of the urine voided in this disease surpasses the amount of the fluids absorbed, he thinks that the question has not been properly considered, and that we ought to compare the amount of water in the urine, &c., with that contained in the food and drink taken. During his investigations, he ascertained the amount of the cutaneous transpiration and pulmonary exhalation by frequently weighing his patient; and he also carefully noted the quantity of water contained in the feces. He has succeeded thereby in satisfying himself that the water given off by the patient equals exactly the amount of the water absorbed by him.

In conclusion, the author believes, from all his researches, that diabetes principally depends on the sugar normally existing in the blood being undestroyed and unappropriated; and he is of opinion that all kinds of food are capable of producing sugar.—*Monthly Journ. Med. Sci.*, from *Heule und I'feuffer's Zeitsch. für Rationelle Medicin.* 1853. Bd. iv. 11ft. i.

24. *Betz on the Thyroid Asthma of Young Children.*—Medical men are divided on the subject of thyroid and thymic asthma; some acknowledging, and others altogether denying their existence. Alois Bednar, for example, in his recent work (*Krankheiten der Neugeborenen*, pt. 3, page 77), does not believe in the existence of asthma resulting from hypertrophy of the thyroid gland alone. He relates ten cases of thyroid enlargement, nine of which were attended with asthmatic symptoms; but in all of these nine cases there existed other pathological affections of the air-passages, sufficient to account for the dyspnoea. He alleges that the thyroid gland may be enlarged without the respiration being affected, but confesses that most cases of hypertrophy are attended by a difficulty of breathing; and he considers the dyspnoea so induced as not asthmatic in its character. Friedrich Betz, of Heilbron, has published an interesting paper on the subject, in which he regards the impediment to the entrance of air, in cases of thyroid hypertrophy, as existing neither at the upper part of the trachea nor in the larynx, but higher up, at the entrance to the air-passages, where the enlarged gland projects into the floor of the mouth. The thyroid body has this peculiarity of conformation in new-born infants, so that both its lateral lobes extend backwards, between the pharynx and the vertebral column; and, according to Albers (*Constatt's Jahresbericht*, 1848), the lobes may even become bleuded together, so as to form a fleshy ring round the larynx and top of the pharynx.

When, therefore, its extremities become swollen, they constrict the parts inclosed within them.

This affection is easily recognized by swelling of the upper part of the neck, and sensible enlargement of the thyroid body. Expiration and inspiration are both stridulous; the sounds continue without intermission, only remitting during sleep. The mouth is filled with frothy saliva; the hands, feet, lips, and face, are cold and bluish; there is no fever, there is an occasional paroxysm of coughing, and the sleep is short and broken. Suckling is impossible, for the attempts to swallow fluids increase the suffocative dyspnœa. In severe cases, death occurs after from one to four days; in those which are milder, the swelling gradually subsides, and with it the dysphagia and dyspnœa. It assists our diagnosis to remember that this disease is limited, the first eight to fourteen days after birth.—*Monthly Journ. Med. Sci.* July, 1854, from *Jour. für Kinderkrankh.* Sept. and Oct. 1853.

SURGICAL PATHOLOGY AND THERAPEUTICS, AND OPERATIVE SURGERY.

25. *Modern Philosophy of Cancer*.—ROBERT DRUITT, Esq., in an interesting paper read before the Medical Society of London (*Assoc. Med. Journ.* Jan. 13, 1854), calls attention to the necessity of reform of the classification of cancer, and of the diseases allied to it. These diseases have been classified on three principles: 1. The outward resemblance of morbid growths to natural structures, or to common objects in nature; 2. On the vital qualities of morbid growths—their effects on the health, their curability or fatality; and 3. Physical structure. Mr. Drutt advocates the last base of classification. He thus defines cancer:—

"Cancer is a disease of the blood, manifested by the evolution, in some part of the animal economy, of a structure called the cancer nucleus. This is a bright, oval, well-defined plump body, averaging a little less than one-two-thousandth of an inch in its long diameter, and containing one or more large and distinct nucleoli. In soft, *intense*, rapidly growing cancerous tumours, these nuclei may be free, floating in a liquid, or may be imbedded in a soft, transparent amorphous substance; but usually, this amorphous substance is gathered about the nucleus in a more or less definite spherical mass, called a cell. One cell may inclose one or more nuclei. It becomes much more visible by the addition of water, but vanishes on the addition of acetic acid, which renders the nucleus more bright and distinct. Taken together, the characters of the cancer nucleated cell are, the large size of the nucleus, and of its nucleoli; and the fact that the cells, if abundant and adhering, and ill-developed, are heaped together amorphously; that, if few and well-developed, they have no adhesions to the tissues around them, but readily exude from a cut surface in a milky liquid, called the cancerous juice. This juice in general mixes readily with water; and the cancer cells being, like the similar bodies in milk and pus, not adherent to each other, are equally diffused throughout the liquid, and do not usually clot together as some other cells do.

But, since cell-structures, as they are called, have, besides the cells, some intercellular matter, so in cancer, besides the cancer cell, there is usually some intercell, the varieties of which occasion the varieties of the species. Cancer cells abundantly heaped together, with liquid, or with scanty and delicate filamentous tissue, constitute soft cancer, which is the most intense and rapidly growing example of the species, and which is usually described as the medullary or encephaloid. Scantier growth of cells, more closely packed together in the meshes of fibrous tissue, constitutes the hard, better known as the scirrhus cancer. Immense development of loops of bloodvessels, accompanying superficial cancer, causes it to be called *villous*. When, together with the cancer cells, there is development of a peculiar jelly-like matter, or of a dense imper-